



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,076	09/28/2007	Christian Funke	2400.0390000/VLC/CMB	1328
26111 7590 04/28/2009 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER PIHONAK, SARAH				
ART UNIT		PAPER NUMBER		
4121				
MAIL DATE		DELIVERY MODE		
04/28/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,076

Applicant(s)

FUNKE ET AL.

Examiner

SARAH PIHONAK

Art Unit

4121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, and 7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/CDC)
Paper No(s)/Mail Date 11/28/06, 7/31/07
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

This application is a 371 (national stage application) of PCT/EP04/12330, filed on 10/30/04, and claims foreign priority to Application No. 10353280.3, filed on 11/14/03, and Application No. 102004021564.2, filed on 5/3/04.

Priority

This application claims foreign priority to Application No. 10353280.3, filed on 11/14/03 in Germany, and Application No. 102004021564.2, filed on 5/3/04 in Germany. Certified copies of both applications have been received and filed. However, both applications are in German, and are not accompanied by English translations. The examiner respectfully requests English translations of both applications, to determine the priority date of the instant application. Currently, the priority date and effective filing date given to the instant application is 10/30/04, which is the filing date of PCT/EP04/12330.

Election/Restrictions

1. Applicant's election with traverse of the invention of Group I, claims 1-4 and 7, in the reply filed on 4/7/09 is acknowledged. The traversal is on the ground(s) that the composition of instant claim 1 is shared by all of the instant claims. Applicants also argue that the restriction requirement is improper, as there is not a clear case of lacking unity of invention, and that the reference of Lahm et. al. (WO 03/015519) does not anticipate instant claim 1. This argument is not found persuasive, as Lahm et. al. discloses a composition comprised of a compound of formula I, which shares the same species as that of formula I cited in the instant application (Abstract, p. 74, claim 1). For example, the compound, 3-bromo-N-[4-chloro-2-methyl-6-

{(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, which is also known as coragen, is a species of formula I as taught by Lahm et. al. (p. 23, Example 6), and is also a species of formula I of the instant application. Lahm et. al. also discloses that the compound species of general formula I are present in a composition with other biologically active agents, such as cyfluthrin (p. 75, claim 10, and p. 76, claim 12). Instant claim 1 cites that compounds of general formula I of the instant application are present in a composition with a pyrethroid compound. Cyfluthrin is a pyrethroid compound. Therefore, the composition of instant claim 1 is not novel, and does not present a contribution over prior art, as it is taught by Lahm et. al.

The Applicant's argument regarding that the Restriction Requirement is not an Office Action on the merits is noted. However, to determine whether or not unity of invention is lacking requires determining if the invention(s) are novel or non-obvious over the prior art. Specifically, PCT Rule 13.2 states, "Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art". The special technical feature shared between Groups I-III is the composition as cited in instant claim 1. As Lahm et. al. discloses that a composition comprising a species compound of general formula I, such as coragen, are present along with other biologically active agents, such

as pyrethroids, the invention of instant claim 1 is not novel, and therefore lacks a special technical feature. As the special technical feature of instant claim 1 is lacking, the unity of invention between Groups I-III is not present.

In addition to the requirement for restriction, a request for a species election was made for formula I. The Applicants elected the species, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, which is also known as coragen.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/7/09.

35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

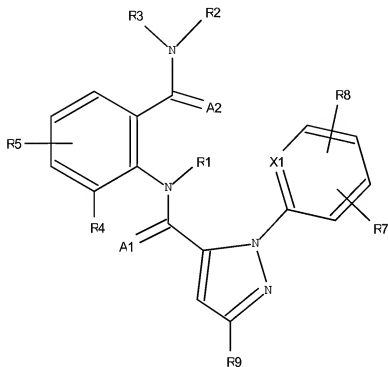
4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1-4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/015518, in view of US 6,472,417 patent, and Colby, *Weeds*, pp. 20-22.
7. Instant claim 1 cites a composition comprised of a synergistic combination of an anthranilamide of the general formula shown below, as well as a pyrethroid compound.

Art Unit: 4121

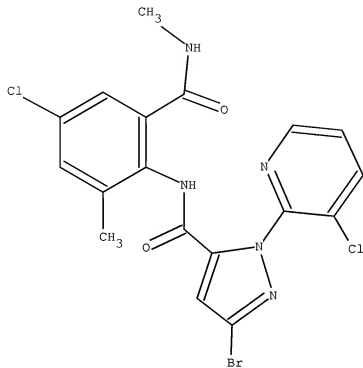
(1)



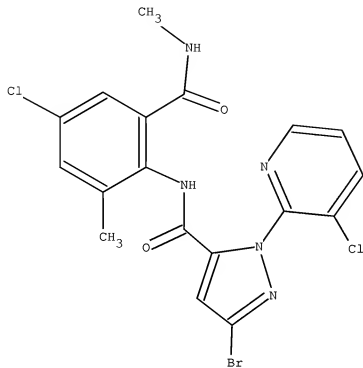
Where X1=N, etc.; R1=H, etc.; R2=H, etc.; R3=C1-6 alkyl, etc.; R4=C1-6 alkyl, etc.;

R5= halogen, etc.; R9=halogen, etc.; R7=halogen, etc.; R8=H, etc.; A1=O, etc.; A2=O, etc. The compound, coragen, is a species of formula I. For coragen, the substituents are as follows: X1=N, R1=H, R2=H, R3=CH₃, R4=CH₃, R5=Cl, R7=Cl, R8=H, R9=Br, A1=O, and A2=O.

Art Unit: 4121

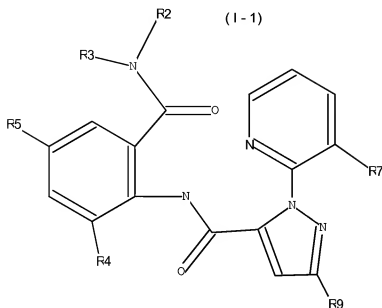


The WO '518 publication discloses a compound of formula I that is identical to the elected species compound, coragen, of which the structure is shown below (p. 42, Example 11):



The WO '518 publication also teaches that the compound disclosed above can be combined with other pesticidal agents, such as cyfluthrin (p. 142, claim 9). Cyfluthrin is a pyrethroid compound.

8. Instant claim 2 cites the composition as stated in instant claim 1, and also, that the compound of formula I is further defined below:



Where R2=H, etc.; R3= C1-6 alkyl, etc.; R5=halogen, etc.; R4=C1-4 alkyl, etc.;
R7=halogen, etc.; R9=halogen, etc.

For the species compound coragen, the substituents are as follows: R2=H, R3=CH₃, R5=Cl, R4=CH₃, R9=Br, R7=Cl. The WO '518 publication discloses a method of use comprised of coragen present in a composition (p. 3, lines 24-27, p. 42, Example 11, p. 89, lines 2-4).

9. Instant claim 3 cites the composition as stated in instant claim 1 or 2, and that the pyrethroid compound is selected from a list of compounds, including cyfluthrin. The WO '518 publication teaches that the disclosed compound can be combined with additional active agents, such as cyfluthrin (p. 142, claim 9).

10. Instant claim 4 cites the composition as stated in instant claim 1 or 2, and that the compound of formula I, which includes the elected species, coragen, is combined with a pyrethroid compound in a ratio from 50:1 to 1:5. The WO '518 publication teaches that

pyrethroid compounds, such as cyfluthrin, can be combined with the disclosed compound species coragen (p. 142, claim 9, p. 42, Example 11).

11. Instant claim 7 cites the composition as stated in instant claim 3, and that the anthranilamide of formula I and a pyrethroid compound are combined in a ratio from 50:1 to 1:5. The WO '518 publication discloses that compounds identical to the species compound of formula I, such as coragen, can be combined with cyfluthrin (p. 42, Example 11, and p. 142, claim 9). Cyfluthrin is a pyrethroid.

12. Regarding instant claims 1-4 and 7, the WO '518 publication teaches that the species of formula I, such as coragen, can be combined with a pyrethroid such as cyfluthrin (p. 42, Example 11, and p. 142, claim 9). However, the WO '518 publication does not explicitly state that coragen is present in a composition with or used as a pesticide with just a pyrethroid such as cyfluthrin. The WO '518 publication teaches that other compounds, in addition to pyrethroids such as cyfluthrin, can be combined with coragen, and other species of formula I.

13. The US '417 patent teaches that the combination of N-phenyl pyrazole derivatives with pyrethroid compounds, such as cyfluthrin, result in a synergistic pesticidal effect (column 1, lines 27-39, and lines 43-49). Coragen is an N-phenyl pyrazole derivative. The N-phenyl pyrazole derivatives taught by the US '417 patent for combination with pyrethroid compounds have different substituents from coragen; however, the patent itself is titled "Synergistic Pesticidal Composition of Pyrethroid and N-Phenyl Pyrazole". The title of the US '417 patent itself implies that different derivatives of pyrazole, and not just pyrazole itself, would have a synergistic effect when

combined with pyrethroid compounds. Furthermore, the N-phenyl pyrazole compound derivatives taught by the US '417 patent and coragen both serve as pesticides. As the N-phenyl pyrazole derivatives taught by the US '417 patent and coragen both function as pesticides and are N-phenyl pyrazole compounds, it would have been obvious that other derivatives, such as coragen, could be combined with pyrethroid compounds for a synergistic effect. Additionally, the WO '518 publication also teaches that coragen is a potent pesticide, yet provides significant protection to plants (p. 115, compound 531, p. 128, lines 7-8 and 25, p. 129, lines 10-11 and 27, p. 131, lines 20 and 22, p. 136, lines 1-8). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to prepare a composition and use a composition comprised of coragen, and cyfluthrin, because the WO '518 publication teaches that coragen can be combined with pyrethroid compounds such as cyfluthrin, and the US '417 patent teaches that compositions comprised of N-phenyl pyrazole derivatives and pyrethroids create a synergistic insecticidal effect.

14. Regarding instant claims 4 and 7, the WO '518 publication and the US '417 patent do not in combination teach that the ratio of the compound of formula I to the pyrethroid compound, such as cyfluthrin, is from 50:1 to 5:1.

15. Colby teaches that a synergistic ratio of herbicide compounds present in a composition can be determined through the following equation: $E = X + Y - (XY/100)$; in which E=the expected percent inhibition of growth by herbicides; X=the percent inhibition of growth by herbicide X in units of lb/A; Y=the percent inhibition of growth by herbicide Y in units of lb/A (p. 20, left column, last paragraph). If the actual response of

inhibition is greater than the calculated response, E, the combination is synergistic (p. 20, right column, first paragraph). The formula disclosed by Colby is therefore used to determine whether a ratio of pesticidal compounds, in combination, results in a synergistic effect. The formula can also be expanded to include more than 2 compounds (p. 21, left column, first equation). While Colby discloses the formula for use in determining a synergistic herbicide combination, it would have been obvious that the formula could have also been applied to pesticides. It would also have been obvious for one of ordinary skill in the art to optimize the ratios of coragen and cyfluthrin based upon the synergistic effect calculated by Colby's formula, and to determine which ratios would provide maximum synergy. Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made that a method of use and composition comprised of coragen and cyfluthrin would be combined in a ratio from 50:1 to 5:1 to achieve a synergistic effect, as the WO '518 publication and the US '417 patent in combination teach that coragen and cyfluthrin are combined to produce a synergistic pesticidal effect, and Colby teaches how to calculate a synergistic effect. Application of the formulas disclosed by Colby would have resulted in the ratios disclosed by the instant claims.

Obviousness Type Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1-3, and 5-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-7, and 9-10 of copending Application No. 10/578512, in view of US 6,472,417 patent.

This is a provisional obviousness-type double patenting rejection.

18. Instant claim 1 cites a composition comprised of an anthranilamide of formula I, and at least one pyrethroid compound. Instant claim 6 of co-pending application number 10/578512 cites a composition as stated in claim 1, 2, 3, 4, or 5, comprising at least one anthranilamide of general formula II. The anthranilamide cited in instant claim 1 and the anthranilamide cited in claim 6 of co-pending application number 10/578512 are of the same general formula, with the same possible substituents. Instant claim 1, from which claim 6 is dependent upon, of co-pending application number 10/578512, cites that the composition is comprised of a list of possible compound, including bifenthrin, which is a pyrethroid. The US '417 patent teaches that bifenthrin, in combination with N-

phenylpyrrole derivatives, produces a synergistic pesticidal effect (Title, column 1, lines 27-39, and column 2, lines 54-56). As such, it would have been obvious to combine anthranilamides of formula II as cited by claim 6 of application number 10/578512 with bifenthrin. Therefore, instant claim 1 and claim 6 of the co-pending application number 10/578512 cite the same embodiments.

19. Instant claim 2 cites the composition as stated in instant claim 1, and that the anthranilamide is of general formula (I-1). Claim 7 of co-pending application number 10/578512 cites a composition comprised of an anthranilamide of formula (II-1), as well as the composition as stated in claims 1, 2, 3, 4, or 5. The anthranilamide formulas I-1 and II-1 are identical, with the same possible substituents. Claim 1 of co-pending application number 10/578512 cites that the compound bifenthrin, among other possible compounds, is present. The US '417 patent teaches that bifenthrin, in combination with N-phenylpyrrole derivatives, produces a synergistic pesticidal effect (Title, column 1, lines 27-39, and column 2, lines 54-56). As such, it would have been obvious to combine anthranilamides of formula II as cited by claim 6 of application number 10/578512 with bifenthrin. As bifenthrin is a pyrethroid, instant claim 2 and claim 7 of co-pending application number 10/578512 overlap in scope.

20. Instant claim 3 cites the composition as stated in instant claim 1 or 2, and that the pyrethroid compound is selected from a list of compounds, including bifenthrin. Claim 7 of co-pending application number 10/578512 cites the composition as stated in claim 1, 2, 3, 4, or 5, which further comprises the anthranilamide of general formula II-1. The anthranilamide compounds of instant claim 3 and claim 7 of co-pending application

number 10/578512 are identical, and claim 1 of the co-pending application cites that the composition is comprised of bifenthrin, among other possible compounds. The US '417 patent teaches that bifenthrin, in combination with N-phenylpyrrole derivatives, produces a synergistic pesticidal effect (Title, column 1, lines 27-39, and column 2, lines 54-56). As such, it would have been obvious to combine anthranilamides of formula II as cited by claim 6 of application number 10/578512 with bifenthrin. Therefore, instant claim 3 and claim 7 of the co-pending application overlap in scope.

21. Instant claim 5 cites a method of controlling pests which comprises administration of a compound of general formula I and at least one pyrethroid compound. Claim 9 of co-pending application number 10/578512 cites the use of a synergistic mixture as stated in claims 1-7. Claim 1 of the co-pending application cites a composition comprised of a selection of compounds, which includes bifenthrin, while claim 7 cites that the composition is further comprised of an anthranilamide of general formula II-1. The US '417 patent teaches that bifenthrin, in combination with N-phenylpyrrole derivatives, produces a synergistic pesticidal effect (Title, column 1, lines 27-39, and column 2, lines 54-56). As such, it would have been obvious to combine anthranilamides of formula II as cited by claim 6 of application number 10/578512 with bifenthrin. The compound of general formula I as cited in the instant claim includes compounds of general formula II-1. As bifenthrin is a pyrethroid, instant claim 5 and claim 9 overlap in scope.

22. Instant claim 6 cites a process of preparing pesticides, which comprises mixing of the composition as stated in instant claim 1 or 2, along with extenders and/or

surfactants. Claim 10 cites a process of preparing pesticides, which comprises mixing the composition as stated in claims 1-7 with extenders and/or surfactants. Claim 7 of the co-pending application, as discussed supra, cites the composition comprised of an anthranilamide of general formula II-1, as well as bifenthrin of claim 1. Therefore, instant claim 6 and claim 10 of co-pending application number 10/578512 overlap in scope.

Information Disclosure Statements

23. The information disclosure statement (IDS) submitted on 11/28/06, and 7/31/07 were filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH PIHONAK whose telephone number is (571)270-7710. The examiner can normally be reached on Monday-Thursday 7:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on (571)272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.P.

/Patrick J. Nolan/
Supervisory Patent Examiner, Art Unit 4121